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Submitted to:
John Anfinson
Environmental Resources
U.S. Army Corps of Engineers
St. Paul District
June 1988

by:
Goose
Jo Blatti

HISTORY AFIELD

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HISTORY AFIELD

POPULAR REPORT

MISSISSIPPI HEADWATERS RESERVOIRS

ORAL HISTORY INTERVIEWS, SERIES I & II

DACW 37-86-M-1722

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READING 'GAGES' AND HOSTING TOURISTS:
CHANGING TIMES AT THE MISSISSIPPI HEADWATERS RESERVOIRS, 1880s-1980s

A century ago, the shores and woods ringing Sandy, Pokegama, Leech and Winnibigoshish lakes thumped with the sounds of construction. Hundreds labored to build the reservoir dams—Army engineers on temporary assignment, local work crews, teamsters who hauled in everything overland. The booming construction camps were dismantled upon completion of each dam, and the Headwaters facilities were left in the care of resident damtenders who read 'gages', adjusted discharge levels and did whatever else needed doing in the restored quiet at their duty stations.

In recent years, the Corps of Engineers has embarked upon a documentation program to preserve aspects of its history. In the Headwaters region, this history includes modernization of the dam facilities and working conditions, and participation in a 20th century resort industry that attracts thousands of visitors to north central Minnesota every year.

The Dams

The Corps of Engineers initially dammed the natural reservoirs system formed by Leech Lake, Lake Winnibigoshish, Pine River, and Sandy Lake in the years 1881-1891. In a second round of construction between 1899 and 1909, much of the original timber work in the dams was replaced with concrete. The surrounding dam complexes included housing, officers quarters, and work buildings of various sorts. Gull Lake reservoir was added to the system in 1912.

The Headwaters region of Minnesota was a relatively remote region when the Corps began construction of the dams. Surfaced roads were bad



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to non-existent. The railroads hadn't arrived yet. Residents were clustered in widely spaced market towns, lumber camps and Native American communities, on and off the Leech Lake reservation. Much of the area was, and still is, public land held in state and federal forests and in trust for Indian people.

When it was built, the Headwaters reservoir system was intended to serve as an aid to navigation on the Mississippi River; this was the official rationale for the project. An important unofficial reason was maintenance of waterflow to the milling and manufacturing district of Minneapolis. In time, the uses of the reservoir system changed. By the turn of the century, the logging industry in northern Minnesota benefited most from the Corps water discharge policies in the Headwaters region.

Following the construction of the 9-foot channel, which turned the Mississippi into a slackwater canal between Minneapolis, Minnesota and St. Louis, Missouri in the 1930s, supplemental flow from the reservoirs system was no longer a primary tool in maintaining the upper Mississippi River water levels. Operations guidelines were keyed to the needs of resort owners, summer visitors and other local conditions such as wild rice culture and wildlife habitat at the individual lakes during the 1930s.

The Job of Dam-tending

Civilian damtenders maintained the Headwaters reservoirs for the Corps of Engineers. Generally, these men and their families were year-round residents at the dam sites. Damtenders were "on call" 24 hours a day until well into the 20th century. The basic requirements of the job were to monitor water discharge levels at the dams and to adjust those levels per the instructions of the St. Paul Operations staff.

The damtenders kept daily logbooks and performed all actions necessary to regular operations and maintenance of the reservoirs. They were also responsible for repairs and alterations to the dam facilities, insofar as those could be accomplished on-site with local labor and know-how. In the early years, the job also included hospitality to visiting officers on inspection - and sometimes pleasure - trips in the area.

Historically, the physical premises under the care of Corps employees in the Headwaters have included the dams themselves, gage houses, dwellings, officers quarters, boathouses, blacksmith and carpentry shops, barns, chicken coops, and root cellars. Communications capability with the St. Paul Office was always an important feature; consequently, the damtenders had telegraph, telephone and various radio apparatuses over the years.

Carl Anderson, who tended the Gull Lake Dam in the mid-1930s remembers the arrangements there.

You see, at Gull Lake, it was expected that you should raise a garden; you should make a part of your living off the ground, and this we did to the fullest extent. We kept chickens; I bought a milk cow. Before we left there [to take a new duty station at Pokegama Dam], we had 4 cows, and 13 head of young stock growing up there. (CA p.10)

Carl Anderson, retired damtender
at Gull Lake and Pokegama

Resident damtenders paid rent on the dwelling and grounds; they also reimbursed the Corps for long distance telephone calls and other uses of the government facilities.

The job of damtending remained relatively constant in many respects from the 1880s to about 1950. First and foremost, it was hard physical

work. The manual operation of the dams required strength and endurance. Ole Henderson remembers frozen discharge water in the wintertime.

Well, I can remember many, many mornings when it would be -40 degrees and step out, and I'd hear this whistling...It was so beastly cold, it would freeze up to the dam. You'd go out and look at that gage, and the damn thing'd be way out of sight, you couldn't even find it, you know.

You'd have to chop all that out. You couldn't wait until it warmed up, because it had to be done at that time. 40 below. That was a miserable thing. You didn't stand there and look at it, I'll tell you. You had to work. (OH pp.4-5)

It took an hour to fully open or close the stop log sluices that regulated the flow at Pokegama. Replacing the Western spruce logs in the sluice gates was part of the damtender's job, too. Carl Anderson says he hoisted the logs around just fine until he weighed one.

I used to take these logs up on my shoulder one at a time. I didn't have any other way to getting them down from the warehouse to the dam. One day, I took one of the big ones and put it upright on the scale that we had there. It weighed 135 pounds. I couldn't lift it after that. I used to drag 'em down behind the automobile. (CA p. 25)

Irv Seelye, who operated the Winni Dam for 30 years, remembers the year the slide gates went in at his dam, eliminating stop logs for good.

They put them slide gates in in '65 and made operation of the dam 100% better than it was. Those stop logs used to freeze in, and they was always rotting and stuff. Because they would be wet and dry, wet and dry. It's quite simple to operate now. You have an electric winch that you hook on there, and it cranks them up and down, no matter how cold it gets. (IS pp. 7-8)

A round of changes began with the mechanization of the reservoir gages and gates in the 1950s and 1960s. The officers' quarters, barns, workshops, and other outbuildings were moved off-site. The workshops were replaced with modern maintenance buildings combining office and

repair space; the officers' quarters, barns and much of the "domestic farming" apparatus were no longer necessary in the age of automobiles, motels, and supermarkets. Corps employees, now on a 40-hour week plus overtime, have moved off-site to private homes. Many construction and maintenance operations are now handled through contracted labor rather than Corps payroll.

Resorts and Fish Guides

The railroad came into the Headwaters area in 1910, greatly facilitating local travel for year-round residents and long-distance forays by tourists who visited via regularly scheduled fishing and camping excursions.

They used to run trains out of Chicago on the Soo Line, fishing excursions, same as skiing excursions or something like that, into Federal Dam here. And...they used to unload the coal or half the coal off the tender of the steam engines at the time. Throw the fish in there...drawn, gilled, gutted, and they would throw ice up on top of them and go back to Chicago. Hauled trainloads and trainloads and trainloads of them. Just on the tender alone.
(WB p. 16)

Warren Bridge, Federal Dam, MN

Over the years, a summer tourist season based on boating, fishing, hunting and camping has become a mainstay of the regional economy.

Many of the resorts and guide services in the Headwaters region are located in the immediate vicinity of the Corps reservations. For instance, the town of Federal Dam operated a municipal campground adjacent to Leech Lake Dam in the 1920s and 1930s. The U.S. Forestry Service maintains a longstanding camping program in Chippewa National Forest, coterminus with the Winnibigoshish and Leech Lake area; many of the sites have been in place for over 50 years. Fish guides or boat liveries have been leasing dock and office space at Leech Lake dam since

the early 1900s. Warren Bridge's family operated a boat livery at Federal Dam from the 1930s through the 1980s.

In 1936, we cam up here [from Iowa] in June or July, made a fishing trip, and we found that we could buy one of the resorts here at Federal Dam. And so, my father approached the people, people by the name of Clark, decided they would make a sale. They were old time people around here...[T]hey had developed some of the launch fishing trips that derived as resorts throughout the 1920s after the first World War. (WW pp. 2)

Warren Bridge, Federal Dam, MN

Recreational Development

In the years following World War II, the Corps itself got into the recreation business, under authority of the River and Harbors Act of 1944. Initially, these facilities took the form of primitive camping areas and limed latrines on the dam reservations. By the 1980s, the Corps campgrounds featured hook-ups for recreational vehicles (RVs), washing facilities and other comforts; the job of dam-tending had been redefined as park or project manager.

In Irv Seelye's words:

It's really different [now]. Most of your day goes right into recreation...dealing with campers...office work and stuff. But...when you see what you did down there when you started working - the Corps used to do pretty near all their own work, you know what I mean. If they was going to build a new boat ramp or remodel a damtender's house or build a warehouse, it was done in-house. But now, that's not the story. Pretty near everything goes on contract now. (IS pp. 7-8)

For some damtenders, the change was a regretted end to familiar ways. For others, recreation presented a welcome challenge. Both perspectives appear in the damtenders' recollections.

- No, I liked the dam tender part, where you did the carpenter work and concrete work, every damned type of work there was. I guess I'm old-fashioned. (OH p. 9)
- I suppose I favored Leech; [we] had more to deal with the public, you know, the campers and public relations. Go to meetings and do this and do that, which I didn't do at [Gull Lake]. (ES p. 16)

No matter what their individual thoughts about the Corps involvement in recreation, the damtenders noticed how increased prosperity, automobile ownership and vacation benefits brought a broader public into the Headwaters. Ed Fitzpatrick, damtender at Gull Lake and later area manager for all the Headwaters facilities, observed:

People were getting, saving more money. They were buying a few boats and a few guns and some fishing tackle, slowly, but you could see it coming. (EF p. 2)

For the Corps employees who maintain the facilities, the Headwaters is an attractive duty station. Some from local families chose a career with the Corps in part to stay in the area. Others have requested transfers in from elsewhere in the system. Ed Sunde, another of the damtenders who made the transition from gages to parks management, speaks for visitors and year round residents when he notes:

I like to see the people come back in the spring. I hate to see them leave in the fall. I hate[d] to see the launches go out, because I knew there was six months of cold weather and a lot of traveling around. But even in wintertime, there was lots; you would go to Mud Lake and see a bald eagle sitting up there. Wildlife all around. (ES p. 17)

Note: This report is based on research conducted by John Anfinson, St. Paul District Corps of Engineers and consultants Carol Zellie of Landscape Research Inc. and Jo Blatti of HISTORY AFIELD (author).

Persons interviewed for the Headwaters project include: Edmund Fitzpatrick, Orin Henderson, Agnes Henderson, LeRoy Campbell, Russell and Betty Kolb, Edward Sunde, Carl Anderson, Warren Bridge, Mert Lego, Jim Ruyak, Irv Seelye, Lee Staley, Jim von Lorenz and Wesley Walters. We thank each for contributing to our knowledge and understanding of the Corps and communities surrounding the Mississippi Headwaters reservoirs.

Checklist Images
Headwater Popular Report

Intro

- Lake Winni dam construction, 1898-1899
MHS (attached)

The dams

- Detail 1883 map Winnibigoshish Reservation Dam
Corps of Engineers (attached)
- Fishing off the Winni Dam, August 1925
MHS (attached)

Job of dam-tending

- Detail Leech Lake map, showing housing and work complex 1929
Corps of Engineers
or
Winnibigoshish Dam also 1929 showing tourist camp
- Pokegama dwelling and outbuilding, 1937
Corps of Engineers

Resorts and fish guides

- Soo line listing Federal Dam, ca WWI
MHS
- Detail 1937 map Chippewa National Forest, showing campgrounds
MHS

Recreational development

- Detail Gull Lake map (1984) showing camper pads
Corps of Engineers

Note: For job of dam-tending section, both Carl Anderson and the Kolbs
have personal photos documenting everyday work.



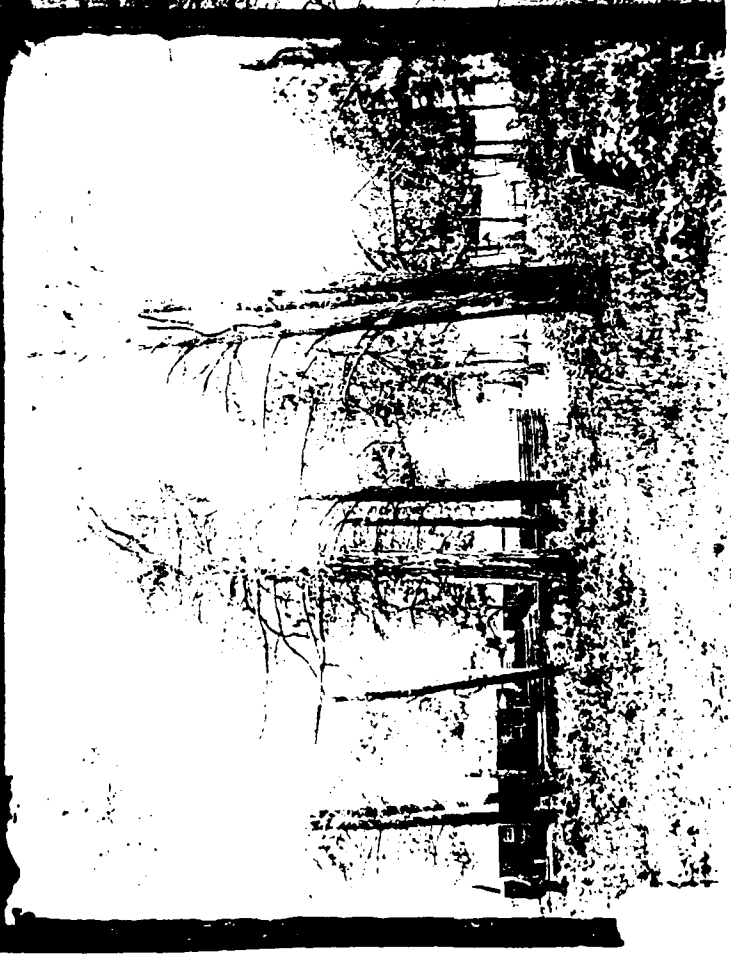
Winni Dam construction 1898-99
-Source: MHS a-v MC3.1W p8



Winni Dam construction 1898-99
-Source: MHS a-v MC3.1W p8

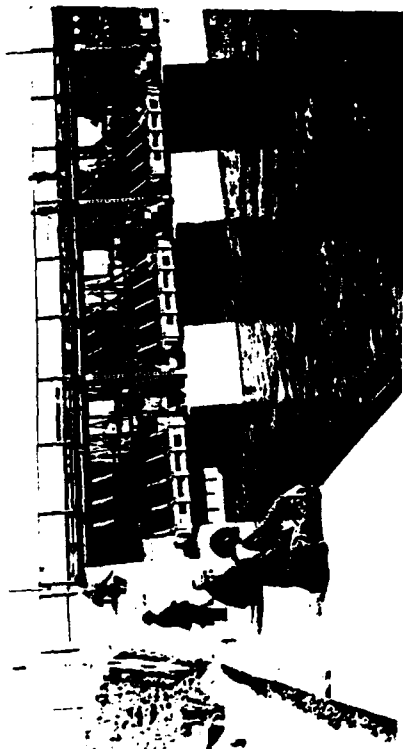


Winni Dam construction 1898-99
-Source: MHS a-v MC3.1W p8



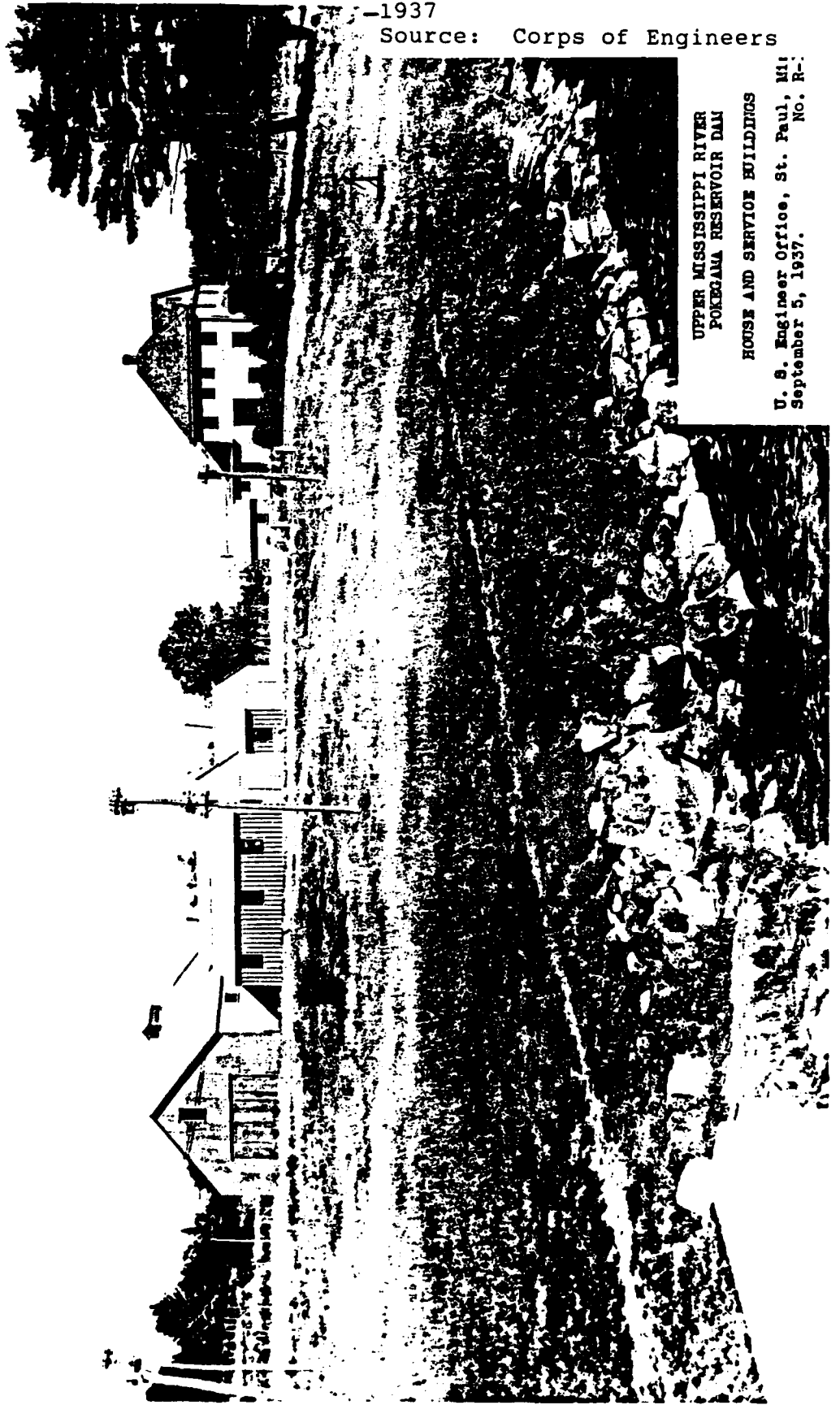
Winni Dam construction 1898-99
-Source: MHS a-v MC3.1W p8

Winni Dam August 1925
-Source: MHS a-v MC3.1W r6



Pokegama house & service bldgs.
-1937


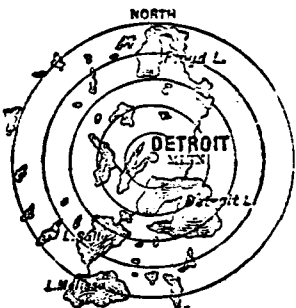
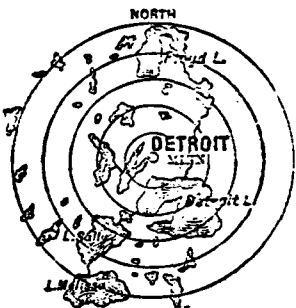
Source: Corps of Engineers



UPPER MISSISSIPPI RIVER
POKEGAMA RESERVOIR DAM

HOUSE AND SERVICE BUILDINGS

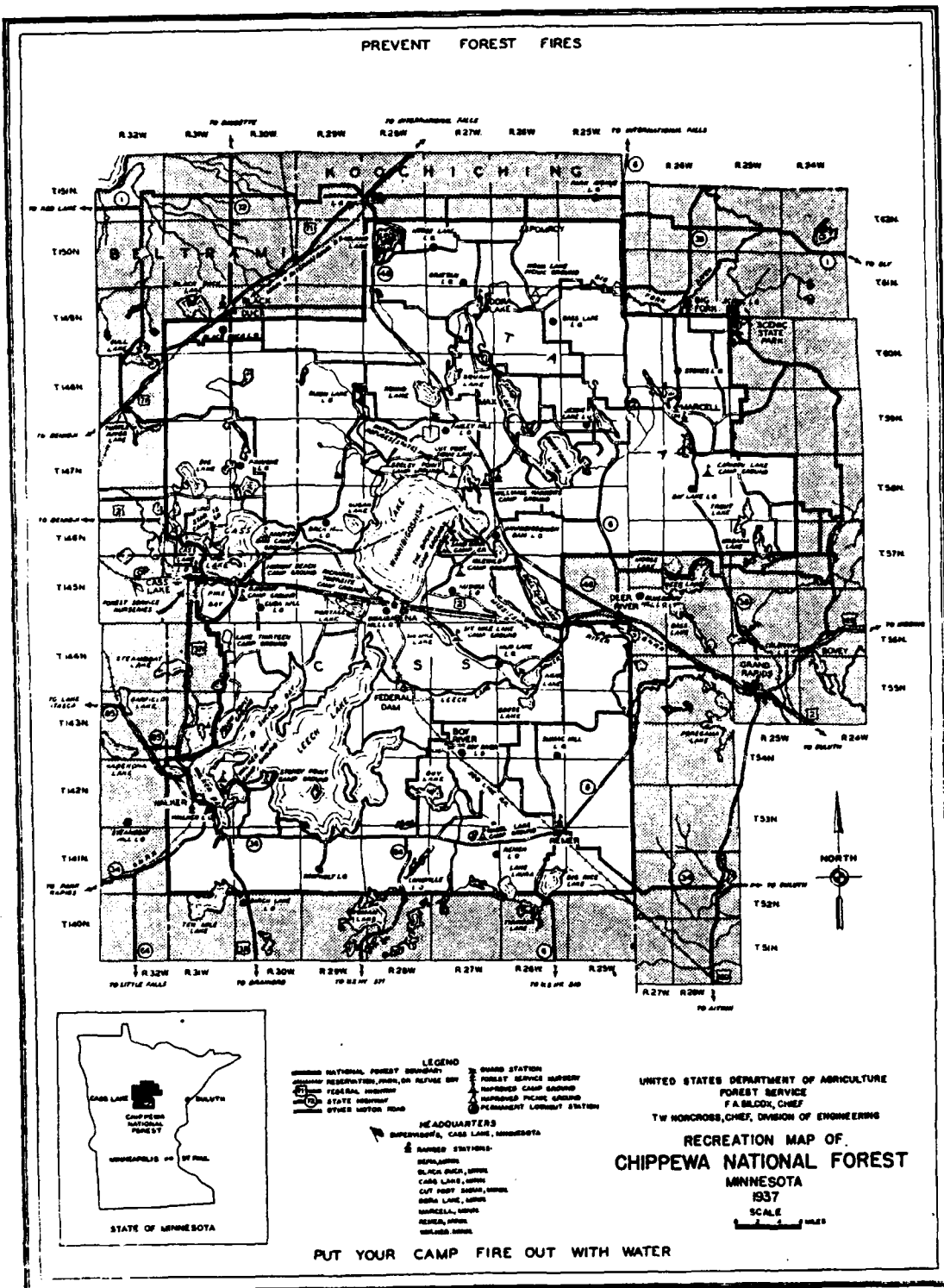
U. S. Engineer Office, St. Paul, Minn.
September 5, 1937. No. R-1

MINNESOTA RESORTS	
<div style="text-align: center;">  <p>An Afternoon on the Beach, Detroit, Minn.</p> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 45%;"> <p>FISH</p> <p>Bass Pike Pickereel Perch</p> </div> <div style="width: 10%; text-align: center;">  </div> <div style="width: 45%;"> <p>GAME</p> <p>Ducks Geese Chickens Deer</p> </div> </div> <p>Detroit, Minn. (213 miles from Twin Cities) Wooded country.</p> <p>Lakes Detroit, Floyd, Sally, Cormorant, (2) (3) (3) (7) Melissa, Pelican, Lizzie. (4) (8) (12)</p> <p>Hotels Colonial. (\$2 per day and up, weekly rates will be made) Lakeside (European). (Rooms 50 cts., meals 35 cts., weekly rates) Weiss Hotel (European). (Rooms 50 cts., meals 35 cts., weekly rates) Shoreham Hotel, between Lakes Sally and Melissa. (\$2 per day, \$10 to \$12 per week. Cottages in connection. Boat and livery service to and from Detroit) Interlaken, K. C. Brownjohn, Prop. (\$10 per week and up. Located at Dunton Locks, hotel and 12 cottages. Large dining room and pavilion. Located three miles from Detroit, on the boat line. Eddy Hotel, on Lake Melissa. (\$10 per week, boat and livery from Detroit) Fair Haven House, on Lake Sally. (\$10 per week, boat and livery from Detroit) Nason Bay Hotel, on Big Detroit Lake. (\$10 per week and up. Cottages in connection Boat and livery from Detroit) Pelican Inn, Pelican Lake. (\$10 per week and up) Midland Beach, Fair Hills and King's Hotel, on Lake Pelican. (\$10 per week and up. Boat and livery from Detroit) Ashelmans Resort, Pelican Lake. (\$2 per day and up) Pettibone Lodge, Geo. Pettibone, Prop. (\$10 per week and up)</p> <p>Livery John Rahm's Auto and Horse Livery, Detroit, Minn. Disse Bros. Livery. John Richmond's Auto Livery, Shoreham, Minn.</p>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>FISH</p> <p>Pike Bass Pickereel</p> </div> <div style="width: 10%; text-align: center;">  </div> <div style="width: 45%;"> <p>GAME</p> <p>Ducks Geese Chickens Deer</p> </div> </div> <p>Eden Valley, Minn. (73 miles from Twin Cities)</p> <p>Lakes Eden, Rice, Long, Brown, Crooket. (2) (4) (5) (6) (7) Fine Bass fishing in Long, Brown, Rice and Crooket Lakes.</p> <p>Hotels Mansard, A. Sattler, Prop. (\$2 per day)</p> <p>Cottages And boats at Eden Lake and Rice Lake.</p> <p>Boats Inquire at hotels. Tents and boats at Long Lake, Geo. Cloaky, Prop. J. D. Goble at Brown's Lake; Frank Coser, Jack Schafer and Geo. Brossard at Rice Lake.</p> <p>Livery Two good liveries, Auto or Teams.</p> <p>Elbow Lake, Minn. (160 miles from Twin Cities) Prairie Country. No dogs.</p> <p>Lakes Pomme de Terre, Ten Mile, Elbow Lake. (5) (10) (1)</p> <p>River Pomme de Terre. (4)</p> <p>Hotels Park. (\$2 per day, capacity 35 rooms) Prohausky Hotel, at Ten Mile Lake. (\$1 per day, \$7 per week) Haarstad Hotel. (\$2 per day, capacity 18 rooms)</p> <p>Boats And guides obtainable.</p> <p>Livery Rates \$3 per day, \$5 with driver.</p> <p>Erskine, Minn. (274 miles from Twin Cities) Wooded country.</p> <p>Lakes Maple, Badger, Oak, Sarah, Union. (5) (2) (3) (5)</p> <p>Hotels Leland, \$2.50 per day, first class. Merchants, \$2 per day. Maple Bay Hotel, rates on application. Obtainable. To be had at reasonable rates. Auto and horses.</p> <p>Federal Dam, Minn. (142 miles from Duluth and Superior) (258 miles from Twin Cities) Wooded country</p> <p>Lakes Leech, Sand. (1) (2)</p> <p>River Leech. (1)</p> <p>Hotels Stanton, \$2 per day, capacity 50. To be had.</p> <p>Boats To be had.</p> <p>Livery To be had.</p>

Figures under name of lake denote distance from Station.

(Information given regarding hotel rates, etc., believed to be correct but are not guaranteed.)

Chippewa National Forest map,
showing campgrounds, 1937
Source: MHS a-v maps



4142
046
1937

41.17

Source: Corps of Engineers

